

*NOTES FROM THE AUSTRALIAN MUSEUM.*ON A NEW GENUS AND SPECIES OF FRESH WATER
TORTOISE FROM THE FLY RIVER, NEW GUINEA.

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(PLATES III.-VI.)

CARETTOCHELYS, nov. gen.

Head large subquadrangular, narrowed anteriorly, plates six (?), anchylosed, rugose; nostrils anterior, grooved; jaws naked, with sharp cutting edges, the lower curved, without notches; palate grooved. Head and limbs non-retractile. Arms elongate, narrow, compressed, ridged on their rounded anterior portion with narrow plates, nails free, on first two digits only, rest without nails and strongly webbed, the tips flattened, the third the longest. Hindlegs short, first two toes with strong sharp nails, nails only free, the rest strongly webbed to the tips. Tail with narrow rings above. Carapace shield-shaped, rounded and high in front, pointed and keeled behind. Plastron of 9 shields (1) rounded anteriorly and posteriorly, the 2nd and 3rd pairs anchylosed to the marginals. (See plate III.)

CARETTOCCHLYS INSCULPTUS.

Adult female.—First vertebral plate oval, more than twice as long as wide, joins the nuchal plate in front and ends within the two adjacent costals, 3rd to 6th similar in form, the 4th the

(1) There are two small portions cut away from between the 2nd and 3rd plates and the marginals, so that it is impossible to say if these are extra plates or parts of the marginals.

widest, $1\frac{1}{2}$ in its length ; all are separated from one another. The first wedged in between the anterior dorsal plate and first pair of costals, narrow 4-sided, pointed in front, sides curved, almost oval behind, becoming obsolete or ankylosed between the 5th or 6th costal plate.

The nuchal plate apparently ankylosed with the marginal and costals on either side, the sutures scarcely traceable, the 1st pair of marginals short, five-sided, about half as long again as wide, somewhat oblong, their outer margin rounded, anterior upper margin enters the outer lateral margin of the anterior plate forming two sides of an angle, the other margin joining the costal plate and the adjoining second marginal plate are comparatively straight.

First pair of costal plates four-sided, straight behind the 1st vertebral plate except where they surround it ; greatly widened out anteriorly and laterally, joining the first two marginals, and part of the third where they are nearly twice as wide as on their dorsal boundary, posterior margin more than three times the length of the dorsal.

Second pair of costals long, about two-thirds wider at the marginal than at the vertebral boundary, fourth marginal oblong, its suture opposite the hinder margin of the third costal.

The 4th and 5th costal plates similar to the 2nd pair, but each increasing in width at the junction with the marginals and decreasing above on the vertebral line ; the 7th, 8th, and 9th, and the adjacent half of last marginal forming a sharp dorsal ridge and ankylosed together.

Carapace subcordiform highly elevated and rounded in front ; laterally flattened behind, and strongly keeled, the sides shelving with the marginal shields expanding, densely rugose. The three last costal plates connected along the vertebral line forming an elevated sharp ridge, which extends to the centre of the pygomarginal, the adjacent marginal plates expanded over the hind legs. The anterior margin of fore legs covered with from 7 to 10 narrow band-like oblique unequal plates (see pl. VI., fig. 1.) ; nails of the 1st and 2nd toes long, whitish in colour : other toes flattened,

enveloped in skin, webbed, the 3rd the longest, webs extending beyond the tips. Hind legs (pl. VI., fig 2) without any shields, nails of 1st and 2nd toes free, 3rd toe longest, 3rd, 4th, 5th within the web, flattened without nails. Tail with from 14 to 16 narrow curved plates on the upper surface, skin wrinkled.

The 2nd to 6th marginal plates narrow, the 7th much wider behind than in front, 8th almost square, the remainder gradually increasing in width to the 10th, which has its outer border one-fourth greater than its upper, which joins the last two costal plates.

All the marginals from the 6th are slightly curved upwards and outwards to their outer margin, the central is keeled on its anterior half where it forms the last part of the dorsal ridge, adjoining the pygal, but is rounded posteriorly, bevelled off at its hinder margin like the rest. All the marginals from the 6th are very compressed and thinned off, forming a cutting outer edge.

The plastron or ventral shield is flat, of 9 plates, between the 1st and 2nd pairs the interclavicle a 4-sided plate is wedged in, having the two anterior or apical sides nearly twice as long as the posterior and forming an acute angle between the first pair of clavicles; 2nd, 3rd, and 4th pairs of plates with a straight median suture (see pl. III); the 2nd and 3rd pairs anchylosed to the 4th and 7th marginals. The whole of the plates of the carapace and sternum are covered with small round raised rugations or wavy irregular raised lines between shallow sculptures, towards the lower borders on the sides, these take an elongated form sometimes parallel to the sutures.

Hind portion of the head, the neck, and the legs covered with a smooth skin; head with 5 to 7 plates, anterior and median pairs anchylosed. Nostrils anterior, widely grooved in front, coronal plates bent down behind the eyes, mandibles with a sharp cutting horny edge, the symphysis of the upper jaw rounded in front and notched at the sides. Palate grooved on either side (where not cut away), the occipital shields are large and broad and rugose like those on the back. Head large and wide, throat swollen, skin bare round the eye, no preorbital ridges.

Measurements:—Total length of carapace 18 inches; along the curve of the back 19 inches; breadth through widest part

13·6 inches; over the back 18 inches; plastron in length 14·5 inches; breadth 11·5 inches; head and neck about 7 inches, from nostril to eye 1·7, from nostril to posterior margin of occipital shield 3·4 inches; wrist and hand to tip of third finger, 6 inches; width 2·5 inches; hind fin from plastron 8 inches; width 3 inches; tail from plastron 4 inches; free portion of marginal plate over the tail 2·7 inches.

Marginals 10 + 10 + 1	21
Costals 8 + 8.....	16
Pygal 1	1
Nuchal 1.....	1
Vertebral or neural; <i>traceable from without</i>	6 only
Plastron or ventral shield 9 distinct plates.	
Episternal 1 + 1.....	2
Interclavicle 1	1
Hyposternals 1 + 1	2
Hyosternals 1 + 1.....	2
Xiphisternals 1 + 1	2

The two triangular plates at the side, shown in pl. III., are probably only the curved-in portions of the adjacent marginals, and have been cut away in the present specimen.

Remarks.—I had provisionally placed this species near the genus *Cyclanosteus*, as it appeared to me to be allied to that genus and to *Emyda*, but finding that it differed so considerably from both, I have been obliged to create a new genus *Carretochelys* for its reception. If the ossified portions of the genus *Emyda* (Gray), were anchylosed and the posterior flap absorbed, the plastron would be almost identical with the present species. There is nothing in Gray's Catalogue or Supplement that comes nearer to it than these genera, but it appears to me to be a link between the river tortoises and the sea turtles.

The eggs with this specimen prove it to be a female; they are white, hard-shelled, and almost quite round, 1·55 x 1·5 inches in diameter.

EXPLANATION OF PLATES.

PLATE III.

Plastron showing the two small plates, which may have been part of the marginals and not separate plates as shown in the figure, cut away ; the points of ossification shown in each plate.

PLATE IV.

Fig. 1.—Anterior portion of carapace showing medial and 1st and 2nd vertebral plates.

Fig. 2.—Last pair of costals, pygal, and the partly ridged marginal plate and tail, from above.

PLATE V.

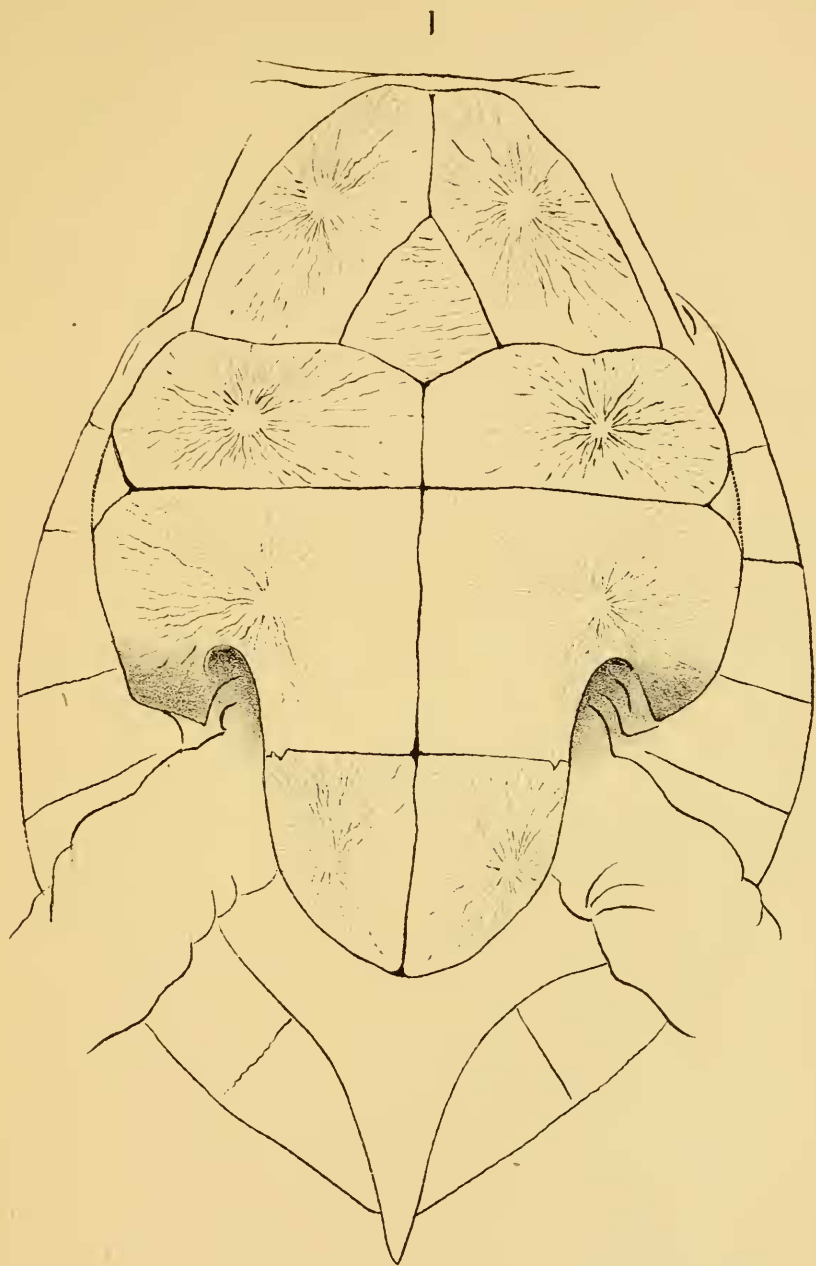
Fig. 1.—Profile of head.

Fig. 2.—Head from above showing the plates.

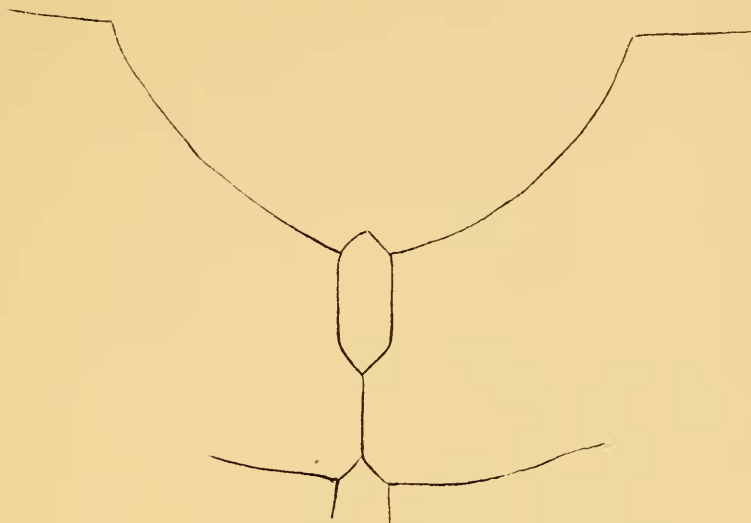
PLATE VI.

Fig. 1.—Fore leg slightly distorted in drying.

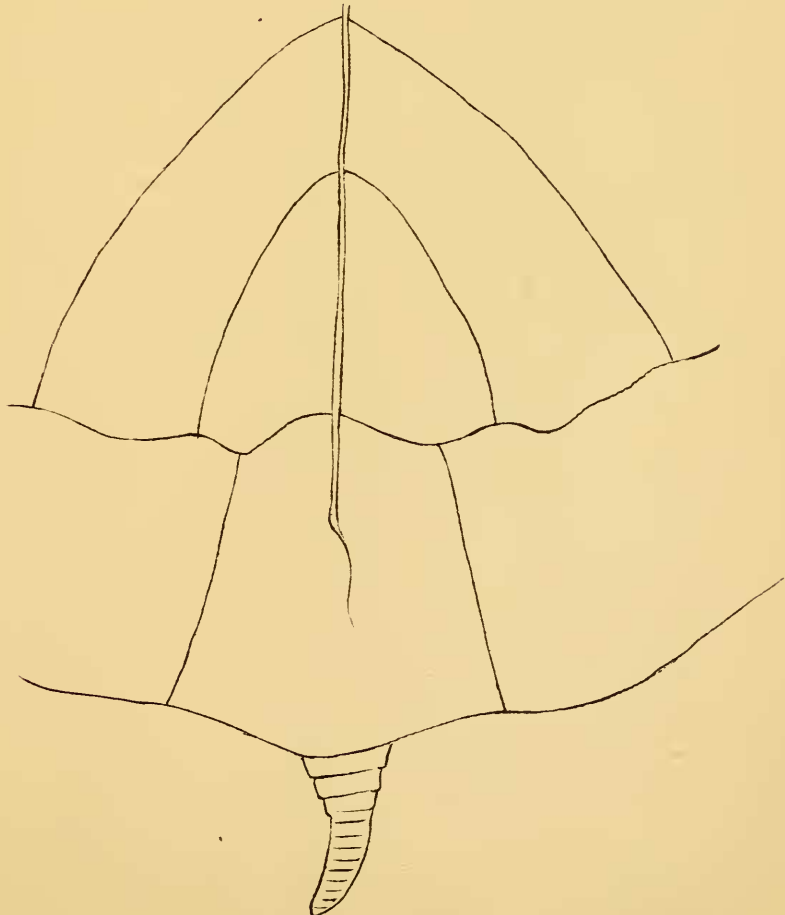
Fig 2.—Hind leg. ,, ,,

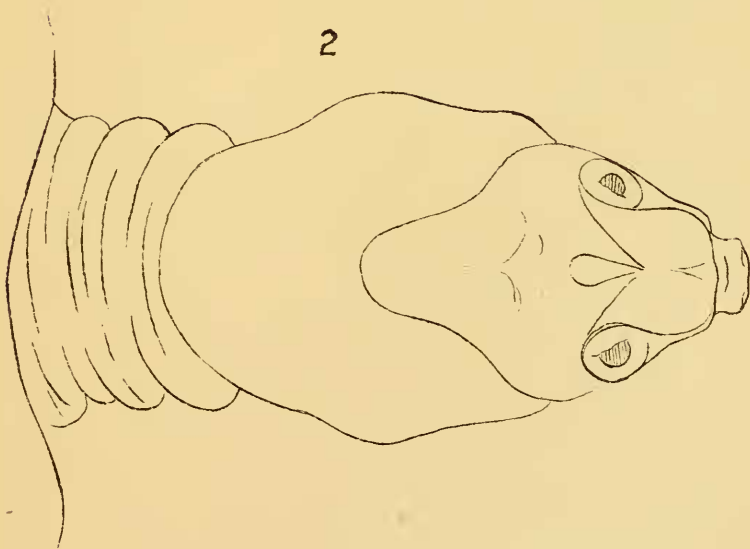


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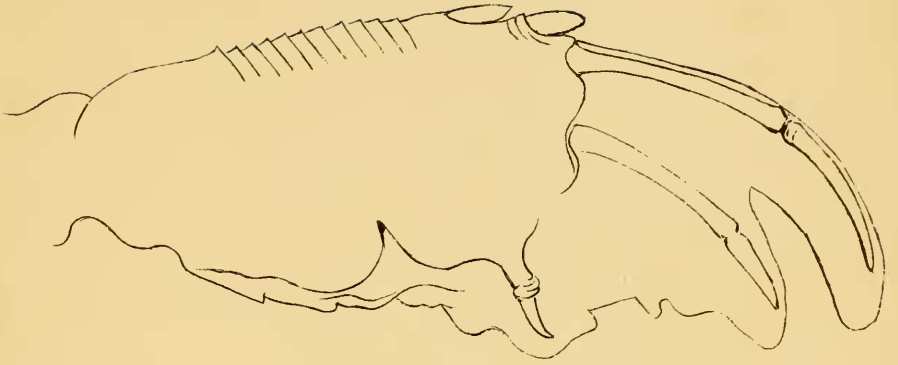


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